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American School  
of Classical Studies  
at Athens

THE OLDER PARTHENON<sup>1</sup>

[PLATES VIII-IX]

THE substructure of an earlier temple on the site of the Parthenon was discovered by Professor Ross in the course of his excavations of 1835-36. It is about four metres longer

<sup>1</sup> The investigation into the remains of the "Older Parthenon" upon which this article is based was carried to its present stage during the year 1910. I have since been intending to resume the work and bring it quite to an end before publishing a report of results. It has, however, become clear that such a course would greatly protract the already long delay in publication, without promising to modify seriously the conclusions already reached or to add very much of importance to them. The present article has accordingly been prepared by revising a paper read before the General Meeting of the Archaeological Institute in December, 1910 (*A.J.A.* XV, 1911, p. 75), and adding to it notes and illustrations.

Outside the great foundation and the part of the superstructure still *in situ*, my lists show 250 stones from the Older Parthenon—38 at various points within the Acropolis, 177 in its north wall, and 35 built into the present Parthenon, besides the large number of blocks used there which may be credibly assigned to the earlier temple on the sole evidence of their dimensions. Of the stones listed, 175 have been carefully examined. In order to allow a new examination of the foundations within the Parthenon—believed to be partly of the earlier temple, *in situ*—excavations were made in April-May, 1910, wherever the absence of pavement rendered them possible. This had been done once already, except in the northeast corner of the peristyle, in the course of the general excavation of the Acropolis by the Greek Archaeological Society in 1885-1889. Small excavations were made at the same time at several points close to the Acropolis walls.

The expense of this work was met by the American School from funds given by Mrs. J. M. Sears of Boston and Mr. and Mrs. R. B. Potter of New York. I am under much obligation also to Professor A. N. Skias, then Ephor of the Acropolis, and to Mr. N. M. Balanos, the Architect directing the restoration of ancient buildings, who with unflinching readiness lent me workmen and apparatus at need.

The drawings are the work of Mr. W. B. Dinsmoor, whose assistance in many ways I would gratefully acknowledge. Three of the photographs reproduced are published by courtesy of the German Archaeological Institute; the others are from the American School's collection.

than would be needed for the Parthenon, and about two metres narrower. For the half century following the discovery of this substructure, scholars were unanimous in assigning to the temple which had rested upon it the marble and limestone steps, the marble column drums, and the poros Doric entablature conspicuous in the north wall of the Acropolis. The temple was identified as that Hecatompedon burned by the Persians, which Hesychius (*s.v.* Ἑκατόμπεδος) says was fifty feet shorter than the Parthenon; and it was variously restored: with 6 by 13, 6 by 14, 8 by 16, 6 by 16, and 8 by 17 columns, according to the restorer's interpretation of the passage in Hesychius and of the evidence afforded by the foundation.

The difficulty caused in all these restorations by the combination in one building of a finished poros entablature with unfinished marble columns was cleared up in 1886 by the discovery of the foundations of an old peristylar temple just south of the Erechtheum, and of completed column drums of poros suitable in size and character to the poros entablature. It then became plain that the blocks built into the north wall of the Acropolis belonged to two separate temples, one of poros, completed; the other largely of marble, and unfinished. Since the discussions of the few years following the discovery of the old temple beside the Erechtheum, practically all scholars have accepted Professor Dörpfeld's attribution of the poros remains to that temple (the true Hecatompedon), and of the unfinished marble columns to the "Older Parthenon," by which name the earlier temple on the site of the Parthenon has for convenience come to be known.

Dörpfeld's restoration, too, of the Older Parthenon has everywhere been adopted. According to this, the peristyle of the temple had marble columns resting upon a stylobate of the hard limestone known as Kará stone. Below the stylobate were two, relatively narrow, steps of poros stone. The temple had eight columns at the ends and nineteen on the sides, both sides and ends showing axial distances of 4.12 m. Within, the restoration gives a hexastyle temple of marble raised on one high marble step. The unusual combination of materials is explained as due to a change of plan in the course of the construction of the temple. It had been begun under the Democracy after the expulsion of the Tyrants, and the construction had proceeded

as far as the stylobate; it was the intention to erect a superstructure of poros, when the work was interrupted by the first Persian invasion. After the victory at Marathon, it was decided to continue the construction in marble instead of in poros, but the limestone krepidoma was left unchanged. Work had proceeded only a little further when the Acropolis was sacked by the Persians under Xerxes.<sup>1</sup>

The investigation of which this paper reports the results yields no evidence to modify materially the history outlined

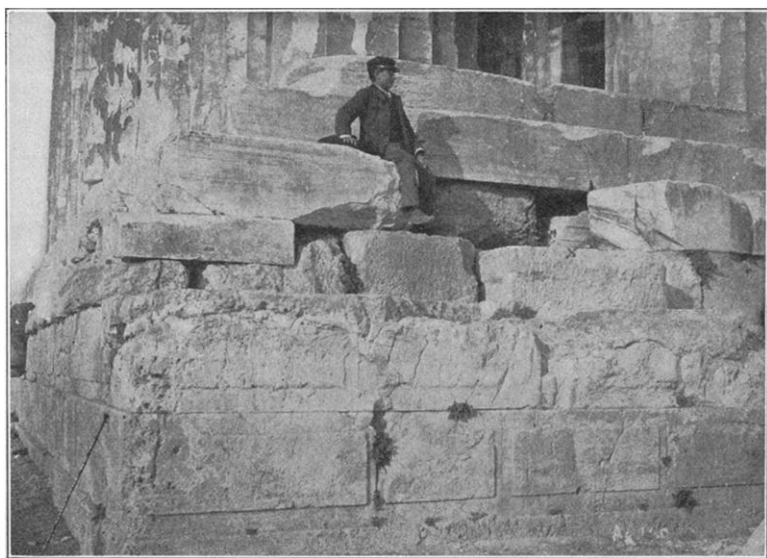


FIGURE 1. — SOUTHWEST CORNER OF THE PARTHENON.<sup>2</sup>

above, but our conception of the precise form of the unfinished temple destroyed by Xerxes must now be considerably changed (see PLATE IX). The accepted restoration, as already stated, calls for two poros steps (these exist *in situ*, and about them there can be no question; see PLATE VIII), and above them a stylobate of Kará stone. Of this stylobate one block is visible

<sup>1</sup> W. Dörpfeld, *Ath. Mitt.* XVII, 1892, pp. 158-189, XXVII, 1902, pp. 379-416.

<sup>2</sup> Southwest corner of the Parthenon, from the South. At x, block of Kará stone belonging to the Older Parthenon. From a photograph of the German Institute.

in the foundations of the present Parthenon, set back about 1.70 m. from the position it is supposed to have occupied originally (Fig. 1). In the north wall of the Acropolis there are about fifty more blocks of like character (Fig. 2). They are easily identified by their material, dimensions, and profile (see Fig. 3).

All of these blocks that can be examined, instead of having the breadth necessary for the stylobate, some two metres, are

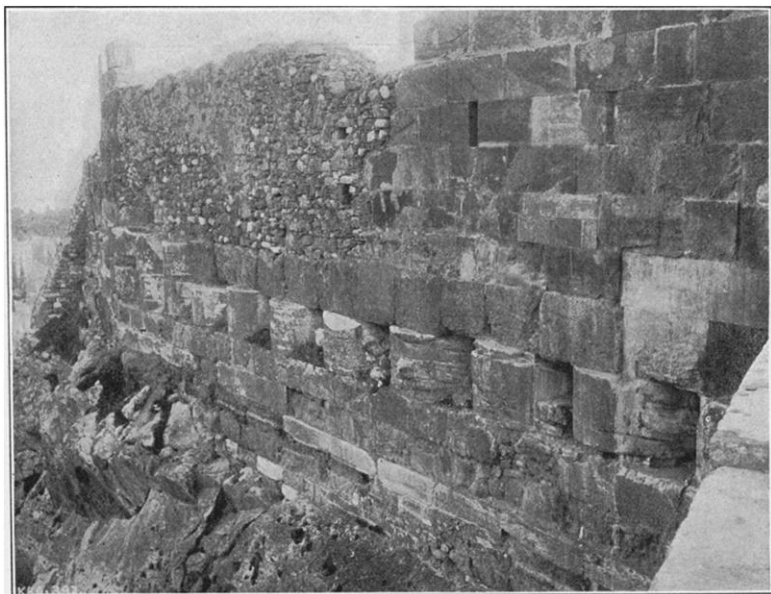


FIGURE 2. — NORTH WALL OF THE ACROPOLIS NEAR THE ERECHTHEUM.<sup>1</sup>

from 0.90 m. to 0.99 m. wide ; they have their original finish on the rear edge, and so cannot be explained as halves of stylobate blocks which have been split ; to form the stylobate they must have been laid in two rows with an irregular joint between — an altogether improbable arrangement. Several of the blocks have cuttings for clamps at their ends (we should certainly not expect this in the stylobate) ; and all those found

<sup>1</sup> From a photograph of the German Institute. Outside of the north wall of the Acropolis near the Erechtheum, built partly of material from the Older Parthenon. Photographed from west of north. The Kará blocks are in the course immediately below the column drums.

well preserved have a raised surface some 0.65 m. wide, on the front part of the top (the "tread"), the rest of the width of the block being cut down to a smooth bed (Fig. 3). All this can be explained only by interpreting the blocks as parts of a step, not of a stylobate; and some of them still show the scratched line, 0.695 m. from the edge, to indicate where the step above was to be set. The width of the finished step, after removal of the protecting surface, would have been 0.673 m.

There have been found also, in or near the north wall of the Acropolis, some half dozen marble blocks from a step 0.521 m.

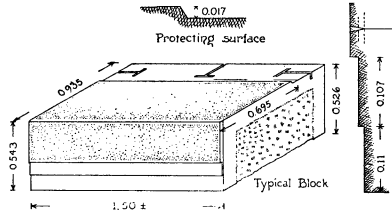


FIGURE 3. — STEP OF KARÁ STONE.

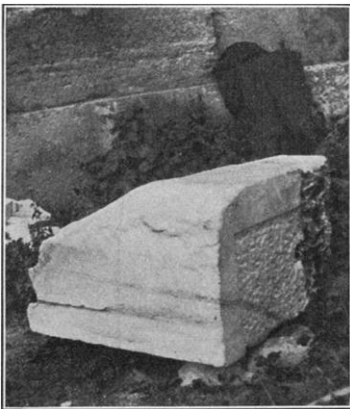


FIGURE 4. — BLOCK FROM MARBLE STEP.<sup>1</sup>



FIGURE 5. — BLOCK FROM MARBLE STEP.<sup>2</sup>

high, belonging unmistakably to the same building as the unfinished marble columns and the Kará steps. Like the latter, these steps have a raised protecting surface on the treads and risers; and they were in all cases bonded by  $\vdash$  clamps (Figs.

<sup>1</sup> Lying northwest of the Erechtheum. A block from the middle step of the Older Parthenon, preserved in every dimension except length.

<sup>2</sup> The top of another block of the middle step. A part of three faces only is preserved; but the protecting surface on the tread, and the bed cut out for the next course above show better than in Figure 4.

4, 5). A corner block which preserves the setting line for the next course above shows that the width of the marble step when finished was to be 0.667 m. on the sides of the building and 0.679 m. at the ends (Fig. 6).

There is another series of marble blocks, 0.564 m. high when complete, which in the accepted restoration are used in the base

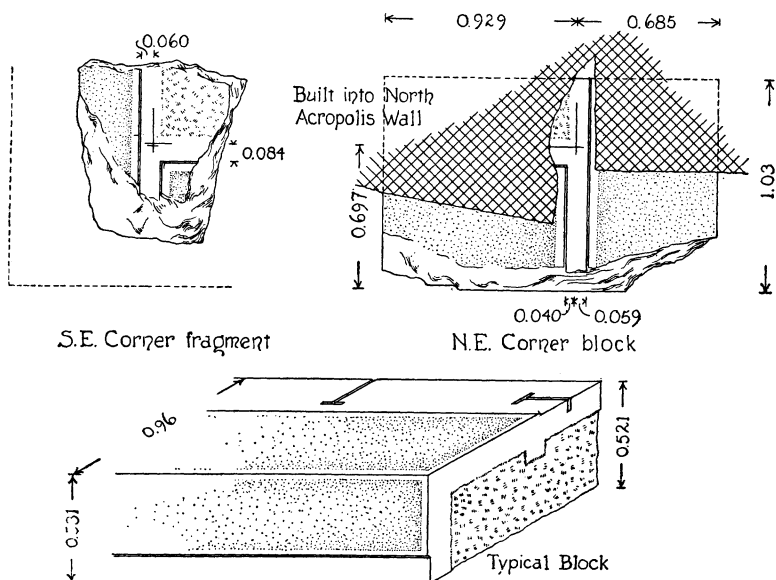


FIGURE 6. — MARBLE BLOCKS OF MIDDLE STEP.<sup>1</sup>

of the wall of the cella, but which belong in fact to the stylobate of the peristyle (Fig. 7). They are on the average about 1.50 m. in length, and in breadth about 0.95 m., but one surface is in every case not original; that is, they are the halves of stylobate blocks once some two metres wide, which have been cut in two.

<sup>1</sup> The small fragment shown here was found in excavation close behind the wall of the Acropolis, near the Erechtheum; it is from the southeast or, perhaps, from the northwest corner. The measurement given in the cut as 0.084 should be 0.074 (that is to say, the shorter of the two setting lines marked in the cut is probably the real one; it is 0.010 m. from the other), which agrees very well with the corresponding measurement (0.075 m., not given in the cut) for the fragment of the northeast (or possibly southwest?) corner block. This (the larger fragment in the cut) is built into the bottom course, outside, of the Acropolis wall, a little west of the salient angle north of the Erechtheum.

Seven such blocks, with the full width preserved, are known, two built into the walls of the Acropolis, four in the foundations of the present Parthenon (Fig. 8), and one lying near the Acropolis Museum (Fig. 9). This last shows a segment of the circular bed for a column, as indeed do three of the half blocks already referred to (Fig. 10). The traces suit the dimensions of the preserved, unfinished column drums, and the



FIGURE 7. — MARBLE BLOCKS IN THE WALL OF THE ACROPOLIS.<sup>1</sup>

blocks unquestionably belong with them to the earlier Parthenon (Fig. 11).

We must therefore place in the peristyle of the Older Parthenon above the two poros steps still *in situ*, not the Kará stylobate provided for in the accepted restoration, but a lower step of Kará stone, a middle step of marble, and a stylobate of marble.

<sup>1</sup> Acropolis wall from within, northeast of the Erechtheum. Stylobate blocks of the Older Parthenon show in two courses above the column drums. All these blocks have been cut in two, but the surfaces which show here are original, either back or front.



If now this stylobate and the two steps are placed directly upon the existing poros podium, so that the two steps of the latter would be the lowest of a five-step krepidoma (two poros, one Kará, two marble), the length of the stylobate at the ends of

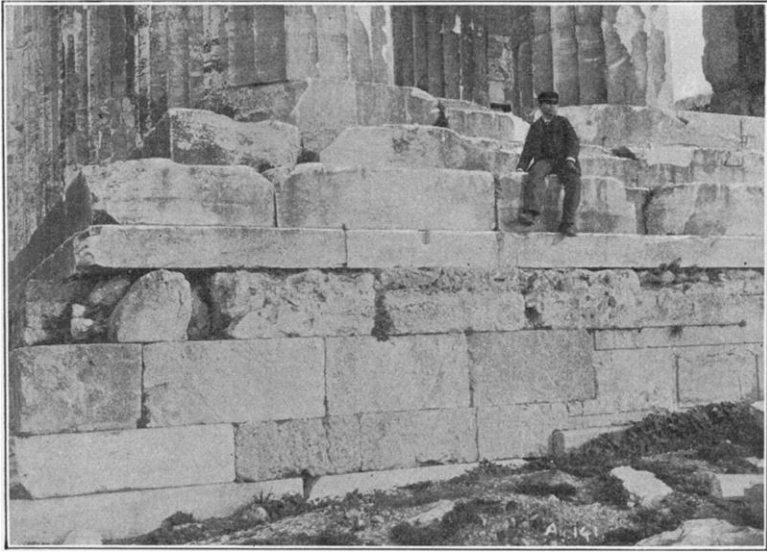


FIGURE 8. — NORTHWEST CORNER OF THE PARTHENON.<sup>1</sup>

the temple will be 26.87 m., and on the sides 72.27 m.<sup>2</sup> With a normal spacing of the columns, the diameter of which is about

<sup>1</sup> From a photograph of the German Institute. Northwest corner of the foundation of the Parthenon from the west. Of the three large marble blocks at the bottom the two lowest are full-size stylobate blocks from the Older Parthenon; the third, which preserves two of the original dimensions, seems also surely of the same series, though its height is now only 0.41 m.

<sup>2</sup> On the finished face of the lower step the podium is 31.390 m. wide and 76.816 m. long (according to new measurements by Mr. Dinsmoor). The combined width of the steps on one side of the temple would be 2.26 m., as follows: First poros step 0.454 m., second poros step 0.466 m. (assuming the same ratio of tread to rise as in the lowest step), Kará stone step 0.673 m., marble step 0.667 m. (at the ends of the building 0.679 m., making the total there 2.272 m.).

$$31.390 \text{ m.} - 2.260 \text{ m.} \times 2 = 26.870 \text{ m.}$$

$$76.816 \text{ m.} - 2.272 \text{ m.} \times 2 = 72.272 \text{ m.}$$

These are *maximum* dimensions of the stylobate; with an increase of the conjectured width of the second poros step, they would be reduced towards a *minimum* of about 30.95 m. by 71.80 m.

1.80 m., these measurements would allow seven columns at the ends and eighteen at the sides ; but an odd number of columns at the ends is, of course, not to be thought of here. With eight columns the intercolumniation would scarcely equal a diameter, so that this arrangement also must be counted impossible. If on the other hand we try six columns, we get an intercolumniation almost a metre greater than that of the present Parthenon.<sup>1</sup> All this makes it very unlikely that the *Kará* step is to be set directly upon the poros step. We must rather assume that it was placed some distance from the edge, so that the poros podium would make a sort of platform around the temple.



FIGURE 9. — MARBLE STYLOBATE BLOCK.<sup>2</sup>



FIGURE 10. — HALF BLOCK OF STYLOBATE.<sup>3</sup>

The one analogy near by is the Temple of Poseidon at Sunium. With six columns having a normal axial spacing — equal, for instance, to two and one half diameters — the platform left at the sides of the temple would be 2.23 m. wide ; that is, the lowest (*Kará*) step of the temple would be set 2.23 m. from the edge of the upper poros step of the podium.

<sup>1</sup> The axial distances of the columns at the ends of the temple would be approximately the following : —

With seven columns 4.35 m. (3.67 m. next the corners).

With eight columns 3.73 m. (3.05 m. next the corners).

With six columns 5.21 m. (4.54 m. next the corners).

The corresponding distance in the Parthenon is 4.296 m.

<sup>2</sup> Full-size stylobate block now lying west of the Museum. It is wrong side up. Of the two vertical surfaces which show, that to the right is the front.

<sup>3</sup> A stylobate block cut in half, lying west of the Museum. The bed cut for a column shows at the nearest corner. The right-hand vertical surface is the new one of the time of the splitting of the block. The part left here is the rear half.

The Kará block (Fig. 1) under the southwest part of the Parthenon (shown, pp. 538 f., to belong to a step rather than to the stylobate of the earlier temple, but assumed in either case to have been placed where it now is by the builders of the existing temple) is 2.146 m. — nearly enough the 2.23 m. suggested above — from the face of the upper step of the podium; and it is a corner block (having the same profile on the west as on the south face), accurately aligned with the orientation of the older

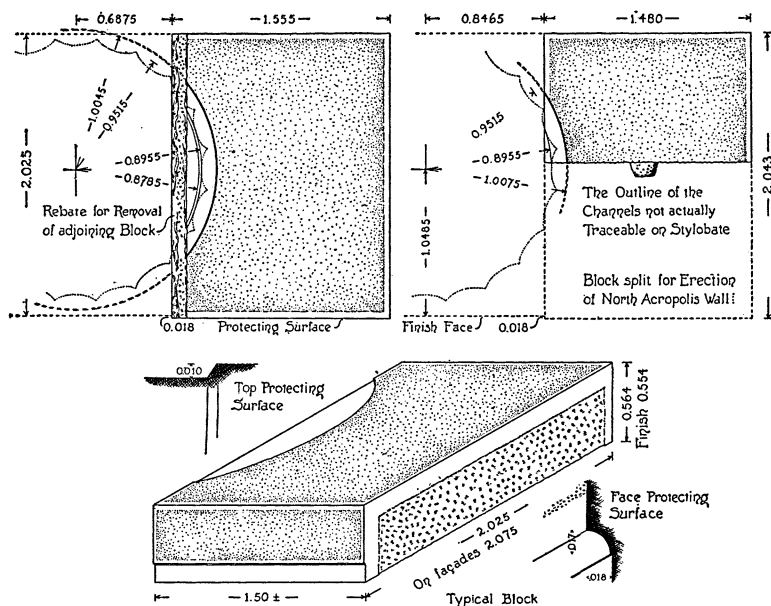


FIGURE 11. — DETAILS OF MARBLE STYLOBATE BLOCKS.<sup>1</sup>

as well as of the present Parthenon. Though its present use is as a “backer” of the lowest step of the Periclean Parthenon, it is not set close behind that step in the normal manner, but there is between it and the marble step of the Parthenon a space of about 0.20 m. (PLATE VIII).<sup>2</sup> The poros podium underneath this Kará block has been cut down close outside it about 0.02 m.,

<sup>1</sup> Details from the blocks shown in Figures 9 and 10. The outline of flutings, added to indicate the exact position of the column, is drawn from the admirably preserved column drum lying near these stylobate blocks, southeast of the Parthenon.

<sup>2</sup> See also Middleton, *Plans and Drawings* (*J. H. S. Suppl. III*), pl. 8, xiii.

as a bed for the lowest step of the existing temple. The Kará block was certainly in its present position when the cutting was made, for this follows close to the edge of the block in a straight line, where the edge is preserved, and then turns in somewhat, where the corner of the Kará block has been broken off; marks may even now be detected where the chisel hit the face of the Kará stone (Fig. 12). Now the normal order of placing the blocks of the present building would have been to prepare this bed, place the step in it, and afterwards set the

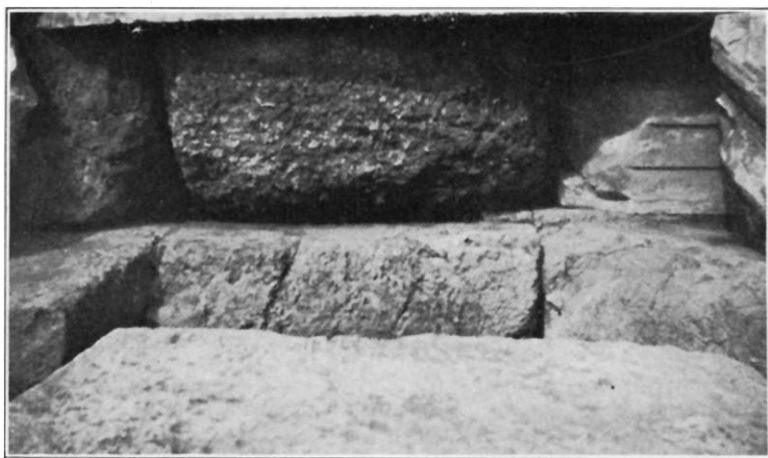


FIGURE 12. — CORNER BLOCK OF THE LOWER STEP OF THE OLDER PARTHENON.<sup>1</sup>

backing stones, as was done in the case of the poros backers immediately west (left) of the Kará block. Instead, however, of this natural sequence, we find the Kará backer first in position, before the bed was cut and the marble step set in place. The only reasonable inference is that the builders of the Parthenon found the Kará block where it now is and used it undisturbed.

Since, therefore, this block of the Kará stone step was in its present position before the building of the Parthenon, and is rightly placed and perfectly aligned for the earlier temple, there

<sup>1</sup> Nearer view of the Kará block shown in Figure 1. The bed cut in the poros podium for the lowest step of the Parthenon may be seen.

can be little doubt that it is *in situ*. If so, we have in it the lowest step of the Older Parthenon at the southwest corner. Investigation shows this course to be preserved at a number of points farther east (Fig. 13), and it may be positively asserted that this lowest step of the Older Parthenon is in place on the south side for very little short of its entire length. In fact, only the southeast corner block is lacking. If that be restored with a length of 1.403 m. (the southwest corner

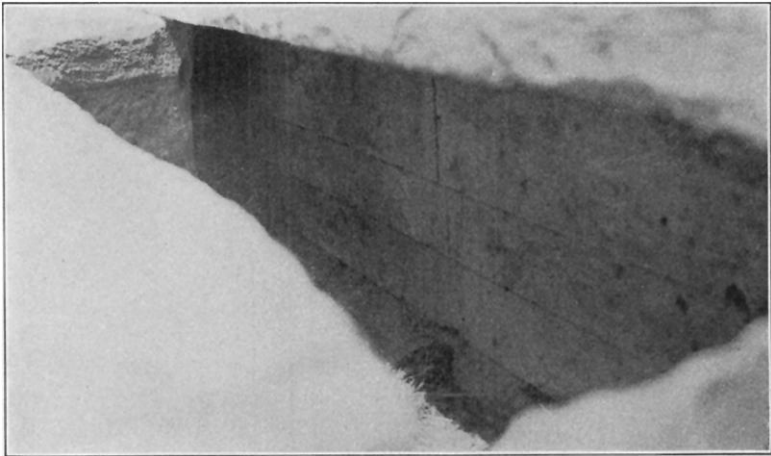


FIGURE 13.— STEP OF KARÁ STONE *IN SITU*.<sup>1</sup>

block measures 1.455 m.), the east end of the temple will be as far from the end of the podium as the west end of the tem-

<sup>1</sup> Foundation of the middle step of the Parthenon, near the southeast corner. Here one of the blocks of the lowest step—already thrust quite out of place, doubtless by earthquakes—has been drawn forward so as to allow the removal of the ancient filling and subsequent accumulation from behind it and the adjacent blocks. As may be seen in the photograph, the hope of discovering the Kará step of the Older Parthenon in place here also, as at the southwest corner, was not disappointed. One of the perfect joints which have been found, to complete the proof that the Kará blocks are *in situ*, appears here. In the lowest fascia the joint is so close as to show only a fine line (hardly discernible in the photograph); it is more open in the two upper fasciae because this part of the step was never worked back to the finished surface (see Figure 3).

The filling in the space between the earlier step and the later consisted almost exclusively of chips of Kará stone swept in, of course, when the older step was being cut down to make a bed for the second step of the new Parthenon. Under the chips of stone were found a bronze mirror and a broken whetstone, deeply worn.

ple actually is, 3.60 m.; 3.146 m. from the upper step of the podium.

If then the bottom step (of Kará stone) be centred on the podium (PLATE IX), leaving outside it a poros platform 3.146 m. wide at the ends and 2.146 m. wide at the sides, the dimensions of the temple, measured on that step, will be: length, 69.616 m.; width, 26.190 m. For the length of the platform is 75.908 m. (or 76.816 m. a step lower on the actual podium or foundation);

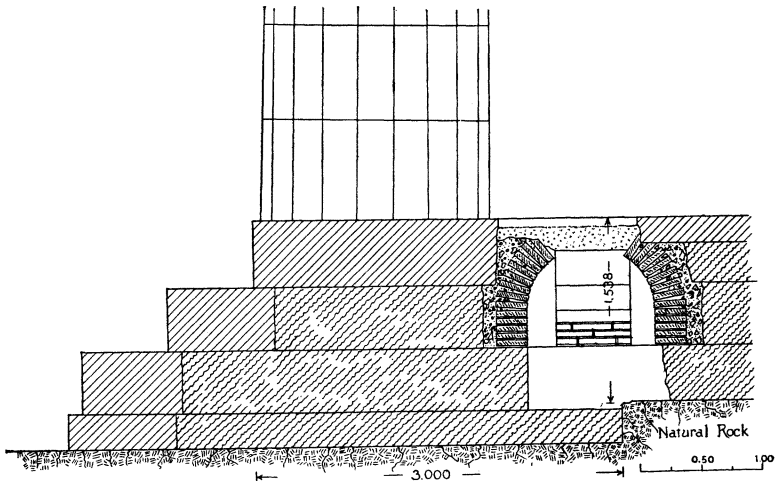


FIGURE 14. — BYZANTINE GRAVE IN NORTHEAST CORNER OF PERISTYLE.  
SECTION LOOKING EAST.

and its width 30.482 m. The latter dimension could be measured directly for the first time in May, 1910, when the clearing of a Byzantine grave in the northeast part of the Parthenon (Fig. 14) revealed the well-preserved northern edge of the platform (that is, the upper step of the poros podium) cut in the native rock. Since the breadth of the finished tread of the Kará stone step (Fig. 3) was 0.673 m. on the sides of the temple <sup>1</sup> (it was probably more at the ends), and the width of the marble middle step

<sup>1</sup> Confirmed by Mr. Dinsmoor's discovery — made while he was preparing his drawings — of part of the middle marble step actually *in situ* near the east end of the south side of the temple, in just the line expected (cf. PLATE VIII). The step, thus found at the single point in this side where a glimpse of the backing of the second step of the Parthenon is possible, is most probably in place, like the Kará step, along the whole south side of the older temple.

(Fig. 6) 0.667 m. on the sides and 0.679 m. on the ends, the dimensions of the stylobate would be 23.510 m. by 66.888m.<sup>1</sup> This allows six columns at the ends, with an axial spacing of 4.53 m., and sixteen on the sides, with an axial spacing of 4.40 m., an arrangement that conforms perfectly to the standard of the time in which we may be sure this part of the temple was built. The stylobate blocks for the ends of the temple show

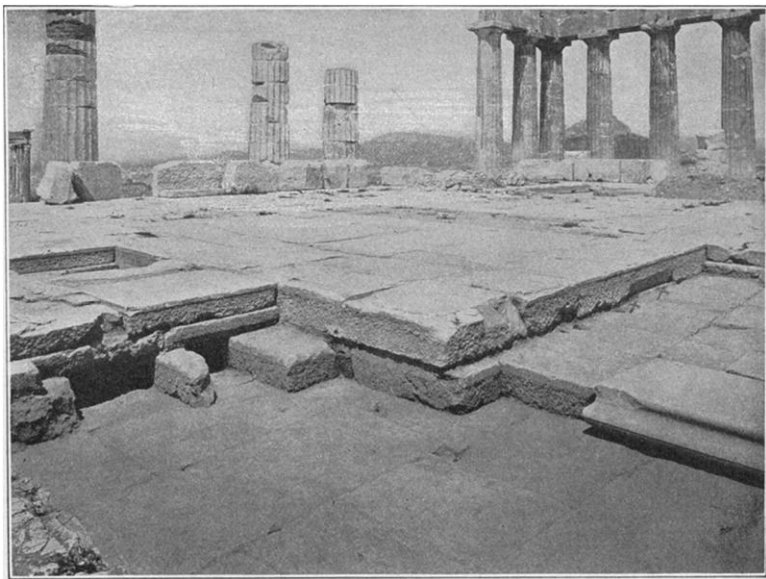


FIGURE 15. — EXCAVATION IN THE SOUTHWEST CORNER OF THE CELLA.<sup>2</sup>

a width of 2.09 m., those from the sides a width of 2.04 m., a difference which corresponds with the difference in the axial spacings on the sides and ends, and indicates the usual slight

<sup>1</sup> Upper tread 0.667 m., at ends 0.679 m.

Lower tread 0.673 m., at ends 0.685 m. (?)

1.34 m.                      1.364 m.

26.19 m. — 1.34 m.  $\times 2 = 23.51$  m.

69.616 m. — 1.364 m.  $\times 2 = 66.888$  m.

<sup>2</sup> Excavation in the southwest corner of the cella of the Parthenon from the southwest. The lowest course of the foundation visible is that ranging with the stylobate of the peristyle of the Older Parthenon. Blocks of the course at the left and middle of the picture are in their original places, but the marble block (that with the moulded profile) and those back of it are a new foundation for the pavement of the present Parthenon.

variation in the size of the columns. The stylobate was so laid that the whole length of every third block would be underneath a column, while a small segment of the column rested on each of the adjacent blocks (Fig. 11), the reverse of the arrangement in the new Parthenon, where every third *joint* of the stylobate is under the centre of a column.

Excavations<sup>1</sup> made inside the Parthenon show everywhere (Fig. 15) within the limits marked out for the Older Parthenon a poros foundation *in situ*, corresponding in its courses with the levels of the steps of the peristyle, while the course ranging with the stylobate is about 0.10 m. lower than the stylobate itself (PLATE VIII). In at least one place there is above this course another, 0.385 m. high (Fig. 15), from the Older Parthenon, and still *in situ*; it bears the setting line for the

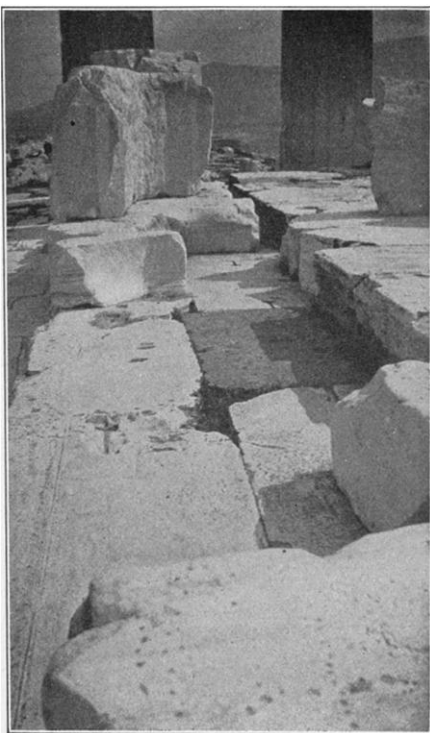


FIGURE 16. — RE-USED MARBLE BLOCKS.<sup>2</sup>

southern interior stylobate, and is therefore part of the topmost course of the foundation within the cella.

The lower step of the cella of the present Parthenon is composed in large part of re-used blocks from the earlier temple. This is shown, in the case of all of them that can be examined,

<sup>1</sup> These were all made for the second time, the same holes having been cleaned and refilled in 1889, during the general excavation of the Acropolis by the Greek Archaeological Society.

<sup>2</sup> The lower step of the cella of the Parthenon, at north side near east end, photograph taken from the west. Old and new clamp cuttings appear in the step itself, and the old clamp cuttings in one or two of the blocks backing the step.



by the fact that they have two sets of clamp cuttings (Figs. 16 and 17). Those of the first set, from which the clamps have been removed by orderly chiselling, do not match in the adjacent stones; those of the second set always do so match, and the clamps, when they are missing, have been hacked out in the manner usual to modern searchers for lead. Clearly only these latter clamps belonged to the existing temple. Now the blocks thus proved to have been put to an earlier use are on the average 1.77 m. long. This is a standard length (six Solonian feet) in the substructure of the Older Parthenon, but it is not normal

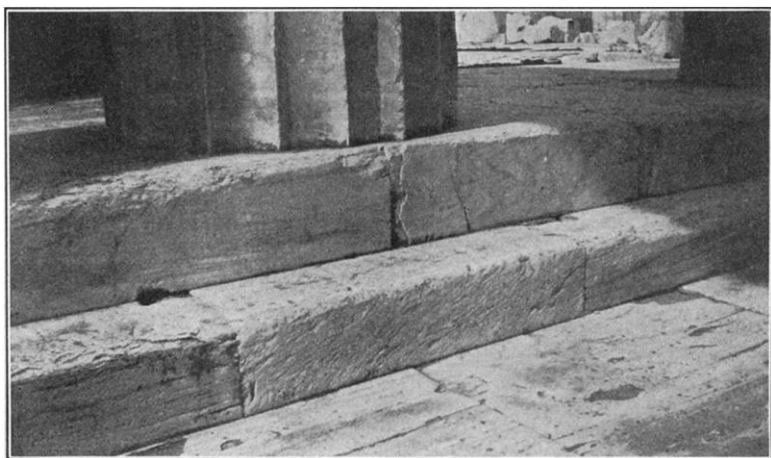


FIGURE 17. — RE-USED MARBLE BLOCKS.<sup>1</sup>

for the present Parthenon. It is, however, the average length of twenty of the twenty-nine blocks of the lower step of the north side of the cella and of a number on the other sides. All these had doubtless been used in the older Parthenon.

The height of these blocks is 0.385 m., the same, that is, as that of the uppermost course of the foundation *in situ* within the older cella (PLATE VIII). Ranged with this course, as seems most natural, the marble blocks will have in the older building the position they have in the new; and no other rea-

<sup>1</sup> Southern part of the steps of the pronaos of the Parthenon, with old clamp cuttings showing in two blocks of the lower step; a rather conspicuous place for such imperfections, but doubtless small pieces of marble were carefully fitted into the cuttings, so that they scarcely showed when the building was new.

sonable place can be found for them. The visible height of the step thus placed would have been about 0.28 m., when the pavement of the peristyle had been put in place. This, however, was never actually laid.

On the north side of the present Parthenon, where, as has already been said, a large majority of the blocks are clearly from the older building, the tread of this step is about 0.296 m., the Solonian foot, while the breadth of the same step on the south side is 0.328 m., the Aeginetan foot, which we know from the Propylaea and the Erechtheum, and indeed from the Parthenon itself, to have been the standard foot in Athens in the age of Pericles. We may then, I think, infer that the tread which has the width of the older foot is a survival from the older temple, and we may fairly restore it on both sides of the cella of that temple. The existing Parthenon shows an analogous discrepancy between the steps of the pronaos and of the posticum, and here, too, we may with probability take the narrower step as showing the width in the earlier building.

At least four blocks exist which may reasonably be assigned to an upper step of the older temple.<sup>1</sup> It would be, like that of the present Parthenon, 0.385 m. high, which equals the width we have taken for the tread of the lower step at the ends of the older temple.

The peristyle having six columns at the ends, the temple itself will have been either distyle *in antis* or tetrastyle at each end. That it must have been the latter is certain from the fact noted by Penrose, who draws the correct inference, that there are preserved five bottom drums of columns of the order of the pronaos and posticum, 1.604 m. in diameter within the flutings. That the temple was prostyle is now shown further

<sup>1</sup> It must be granted that the second step to the cella is probable, only, rather than absolutely sure. The blocks here assigned to the upper step differ from those of the lower in breadth and in the position of their clamps; but they may possibly, nevertheless, since they have the same height, have been part of the same course. And the width, 0.296 m., given above to the first step, is obviously not well enough established to be admissible evidence in proof that a second step existed, though the course immediately under the wall certainly did not project so much as 0.296 m.

Further investigation may, I think, be expected to solve the problem. In the meantime the second step of the cella shown in Plates VIII and IX is admittedly in a measure conjectural.

by the fact that a marble base used in the foundation of the pavement of the present Parthenon (Figs. 15, 18) is the base of an *anta* of the earlier temple.<sup>1</sup> This anta base projected from an end wall only about 0.50 m., so that the columns must have been in front of, and cannot have been between,

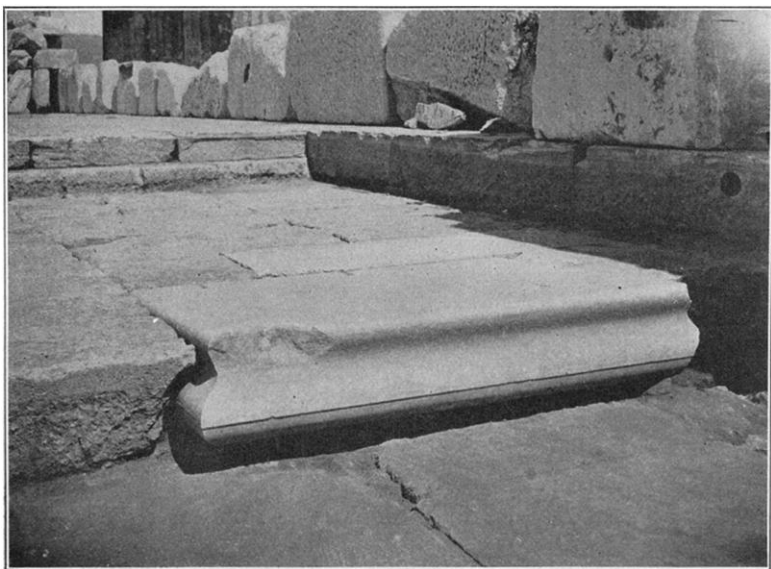


FIGURE 18. — ANTA BASE OF OLDER PARTHENON.

the *antae* (Fig. 19). The base has the so-called Attic profile, two toruses with scotia between. The surface is cut

<sup>1</sup> The anta base had been uncovered, and then reburied, in 1889, and is shown on Kawerau's plan (Kabbadias-Kawerau, *Ausgrabung der Akropolis*, pl. Z', no. 68, and p. 106) as a marble pedestal. The necessity of remeasuring this, and learning whether it belonged to the Older Parthenon, was one of the primary reasons for reopening the excavation in 1910. Recently my attention has been called by Dr. Paton and Mr. Dinsmoor to two passages which trace the modern history of this stone back to the time of Lord Elgin. Dodwell (*Tour through Greece*, I, p. 331) says that part of the Parthenon pavement was torn up by the agents of Lord Elgin, revealing a stratum of poros stone, and some (?) blocks which "were ornamented with mouldings, and probably belonged to the ancient Hekatompedon." Joseph Woods (*Letters of an Architect*, II, p. 251) is more specific, telling us that there was but one moulded slab, and that it was of marble, *i.e.* the very one now extant; "a large slab of marble moulded on the edge, appeared underneath the pavement, which must have been buried at the time of the erection of the temple."

smooth only near the bottom, and the rest is left to be finished after the wall is completed. The condition of the top of the block indicates that it had itself been set in place, but had not been prepared to receive the course next above—the orthostates—when the temple was destroyed. Besides this anta

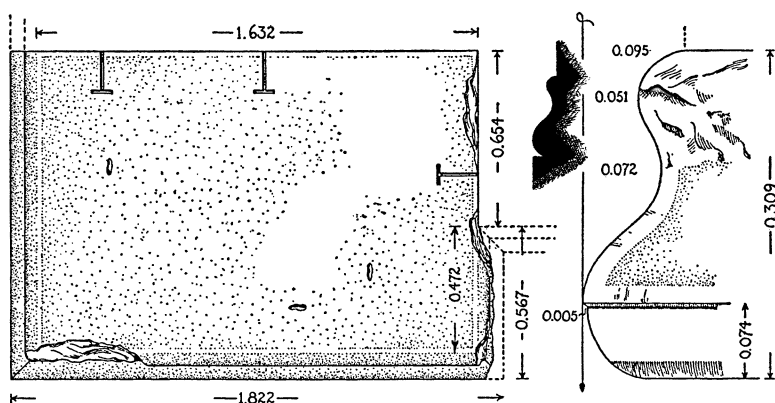


FIGURE 19.—DETAILS OF ANTA BASE OF OLDER PARTHENON.<sup>1</sup>

block, we have six blocks from the moulded wall-base built now into the inside of the western wall of the Parthenon (Fig. 20).

It is interesting to observe that the existence of a similar moulding at the base of the cella wall of the Theseum can no longer be used in evidence to prove that that temple is later than the present Parthenon. . Indeed, the use of the moulded base and the fact that the lowest step of the Theseum, like that of the Older Parthenon, is of limestone (though in the Theseum it is poros, not Kará stone), while all other visible parts of the temple are of marble, tend to show that the Theseum is, so far at least as its beginnings are concerned, older than the Periclean Parthenon.

For the restoration of the plan of the cella of the Older Parthenon there is one new piece of evidence, while evidence hitherto deemed important must be rejected. The latter is the supposed foundation wall visible in the eastern part of the

<sup>1</sup> The T-clamp cuttings shown are original; the pry holes are later, coming where there chanced to be joints in the pavement of the present Parthenon.

cella of the present Parthenon (Fig. 21, marked  $\times \times$ ), which has been held to define the position of the northern wall of the cella of the Older Parthenon.<sup>1</sup> Since the width of the stylobate of this temple, as now established, is less than was supposed, it is impossible that the northern cella wall could have occupied just this position; but in any case the supposed

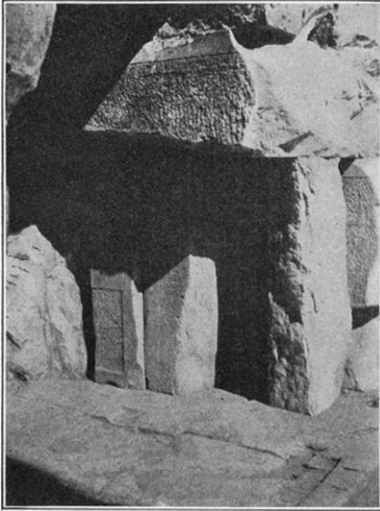


FIGURE 20. — BLOCKS OF MOULDED WALL-BASE.<sup>2</sup>

foundation wall is really not a separate line of wall, but only part of two courses of the general foundation, and the stones of the upper course are not now even in their original position. This is shown, among other things, by the presence of two series of scratch lines on the upper surface. One series is regular and gives the line for setting the interior stylobate of the present Parthenon; the other series appears on several of the stones, but the marks do not now lie in a single, straight line, a fact

which indicates that the stones have been moved from the position they occupied when the lines were first drawn.

The new evidence is found in that part of the uppermost course of the poros foundation already stated to be *in situ*. Here a scratch line running east and west (under the southern part of the stylobate of the southern row of the interior columns of the present temple; at  $\times \times$ , Fig. 15) seems certainly to

<sup>1</sup> Cf. Penrose, *J.H.S.* XII, 1891, p. 285, Pls. XVI and XVII; Dörpfeld, *Ath. Mitt.* XVII, 1892, p. 178.

<sup>2</sup> Blocks of wall-base similar to the anta, used as filling between the orthostates of the west wall of the Parthenon. The picture shows the backs of three of the blocks as they appear at the north side of the door which leads to the spiral staircase of the Turkish minaret. Two others are immediately south of the door, and a sixth beyond them. This and the eastern of the two have the moulded front preserved. The moulding can be reached and examined by touch from the doorway.

have been a setting line for the interior stylobate of the earlier temple. The probabilities are that the columns are to be placed south, rather than north, of this line. A partly finished second (or higher) drum of one of these columns, which measures 1.10 m. in diameter over the final, cylindrical protecting

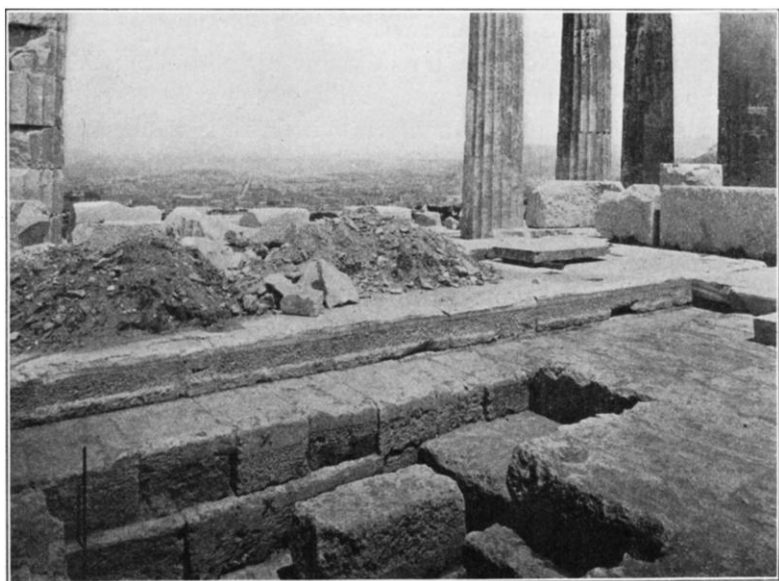


FIGURE 21. — EXCAVATION WITHIN THE PARTHENON.<sup>1</sup>

surface, indicates that the order was slightly smaller than that of the cella of the existing Parthenon.

The setting line mentioned above extends so far to the west as to make it probable that the cella of the earlier temple was little, if at all, shorter than that of the present one. And, since the cella of the present Parthenon bore officially the name *Ἐκατόμπεδος Νεώς*, though it is only ninety-one feet long measured by the standard actually current when it was built, while it measures one hundred and one of the older feet, it seems reasonable to infer that the actual length of the new cella was taken over, and the name with it, from the Older Parthenon.<sup>2</sup>

<sup>1</sup> In the eastern part of the cella just south of the northern, interior stylobate. The picture is taken from west of south. The so-called "foundation wall" shows under and south of the stylobate.

<sup>2</sup> From faint traces on the pavement Penrose (*Principles* <sup>2</sup>, p. 9) reckons the

Whether the cella of the older temple is rightly restored (PLATE IX) as one hundred feet long, or something short of this, there is space for only one room at the west, not for the three rooms adopted in the accepted restoration from the old Hecatompedon. The precise width of the cella has been determined only conjecturally: it must be narrow enough to leave a reasonable space between its walls and the columns of the peristyle and broad enough to leave a reasonable aisle between the wall and the interior columns; its width, whether as broad or as narrow as possible, should conform within reason to the standard for four Doric columns of the size of those known to have stood in the pronaos and posticum. The distance between these tetrastyle porticoes and the outer colonnade, their exact depth and the resultant position of the end walls of the temple,<sup>1</sup> the precise thickness of the various walls, the position of the partition, and the number and distribution of the interior columns must remain in the present state of the evidence matters of conjecture. But of conjecture within rather narrow limits; the degree of variation in admissible restorations is in all these details relatively small. This is true of the temple itself, within the peristyle; in the case of the latter, the evidence has, I hope, been shown to be sufficient for a restoration with only a very small margin of possible error.

This discussion has been confined to the temple actually found by the Persian invaders. That the great podium had not originally been designed to receive so small a temple seems certain, but no stones have appeared that can with plausibility be attributed to any part of an original temple above the two steps of the poros podium. A peristyle with 6 by 15 poros columns of large dimensions (slightly smaller than those of the unfinished

maximum diameter of the columns in the cella of the Parthenon as 1.114 m. The earlier column seems to have had a bottom diameter of not less than 1.07 m. The preserved drum, which lies east of the Acropolis Museum, is shown (upon a restored bottom drum) in PLATE VIII.

<sup>1</sup> In the plan (PLATE IX) the temple has been given very nearly the maximum length. It is possible that the cella should be made to coincide at the ends with the cella of the Parthenon and the whole length of the building within the peristyle be reduced. This reduction of total length would be lessened if the pronaos were made deeper than the posticum by assigning the preserved anta base to this latter and assuming a greater projection for the antae of the pronaos.

sixth century Olympieum) suits the proportions of the podium, and allows a more probable sequence of projects than does the best alternative plan with 8 by 20 columns only slightly larger than those of the Hecatompodon.<sup>1</sup> The first project would then have been a poros temple with 6 by 15 columns much larger than those of the Hecatompodon; the next one, the Older Parthenon, a more costly marble temple with 6 by 16 smaller columns (still, however, greatly surpassing the Hecatompodon in size as well as in material); and finally the present Parthenon with 8 by 17 columns.

It must be supposed, I think, that, when work on the new marble temple was interrupted by the invasion of 480 B.C., the steps and stylobate of the peristyle and the steps of the podium of the cella, with probably also the interior stylobate, had been completed; that one or two drums of many, perhaps most, of the columns of the peristyle, and one drum at least of the majority of the columns of the pronaos and posticum, and something too of the interior columns, had been set up; that part of the moulded wall-base of the cella was in place, but above it probably nothing. Around the columns would have been a heavy scaffolding which, in burning, must have injured the stones already in place to such an extent that there could be no question of continuing the construction without first replacing many blocks. Indeed, after the Persian wars, the ruined new temple, like the ruins of the Hecatompodon, furnished material for the builders of the north wall of the Acropolis. They, however, seem to have taken stones from the northern part of the temple chiefly—as would be natural—and to have used of the marble available only much-damaged blocks. When

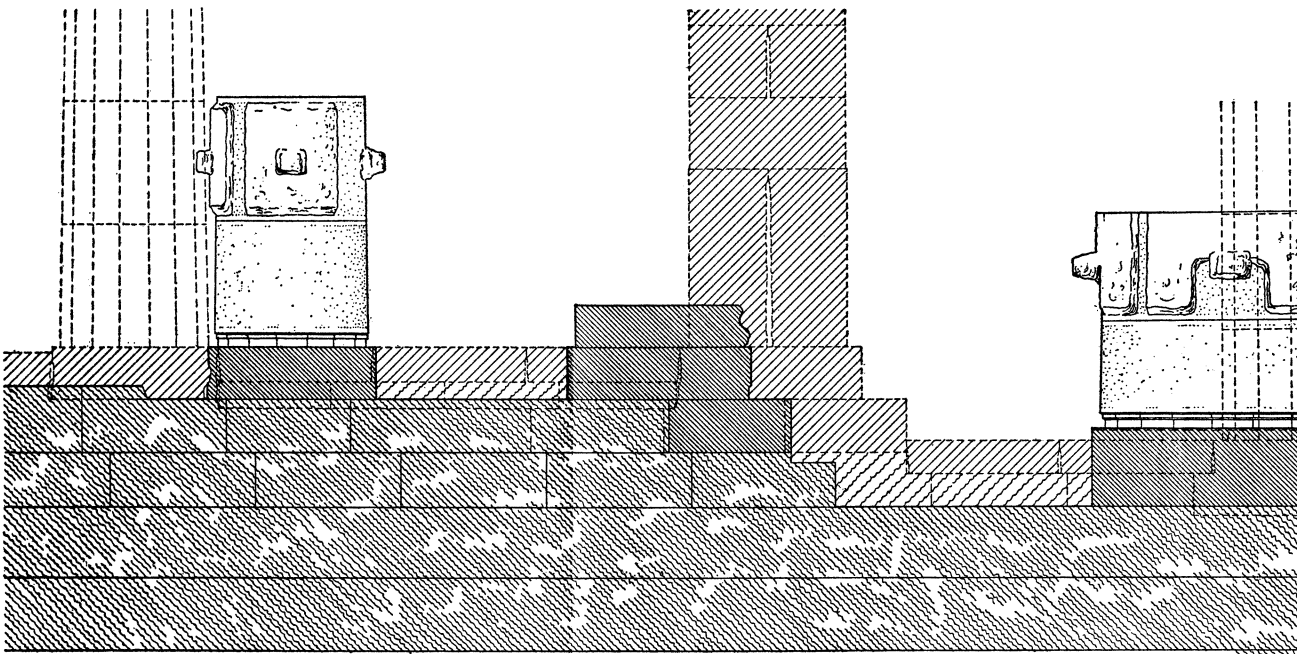
<sup>1</sup> The stylobate if set directly upon the existing two poros steps with the upper tread equal to the lower (0.454 m.), will measure 29.57 m. by 75.00 m. With 8 by 20 columns the axial distances would then be 4.10 m. at the ends and 3.90 m. at the sides; with 6 by 15 columns, 5.69 m. and 5.28 m. In this arrangement of steps, however, the riser (0.575 m.) is quite disproportionate to the tread (0.454 m.), and I think it probable that the lower step of the podium was planned to be in effect the euthynteria of the temple, with the regular three steps normally proportioned above it, as shown in outline in PLATE VIII. The dimensions of the stylobate would then be 28.18 m. by 73.60 m., treads and risers of the steps being made equal. (The treads might be somewhat broader, and the dimensions of the stylobate slightly reduced.) This allows axial distances of 5.42 m. on the fronts and 5.18 m. on the flanks of a peristyle having 6 by 15 columns.



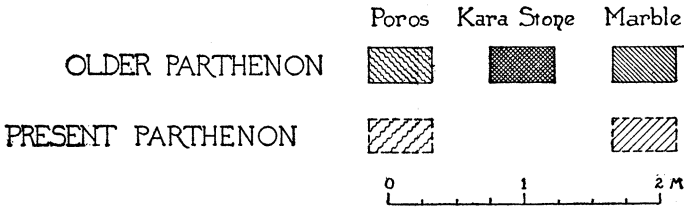
the present Parthenon was planned, it was made in many dimensions precisely the same as the older temple, so that blocks from the latter, not too much injured, might be used in the new building. Thus the steps and stylobate of the peristyle were made of the same height as the marble step and stylobate of the Older Parthenon ; the steps of the cella are of the same height in both temples, and the columns are throughout of very nearly the same dimensions. Thus much of the material already used in the earlier temple, and doubtless much more that was lying about in partly finished blocks, which would probably have been very little injured by the fires of the Persians, could be utilized.

B. H. HILL.

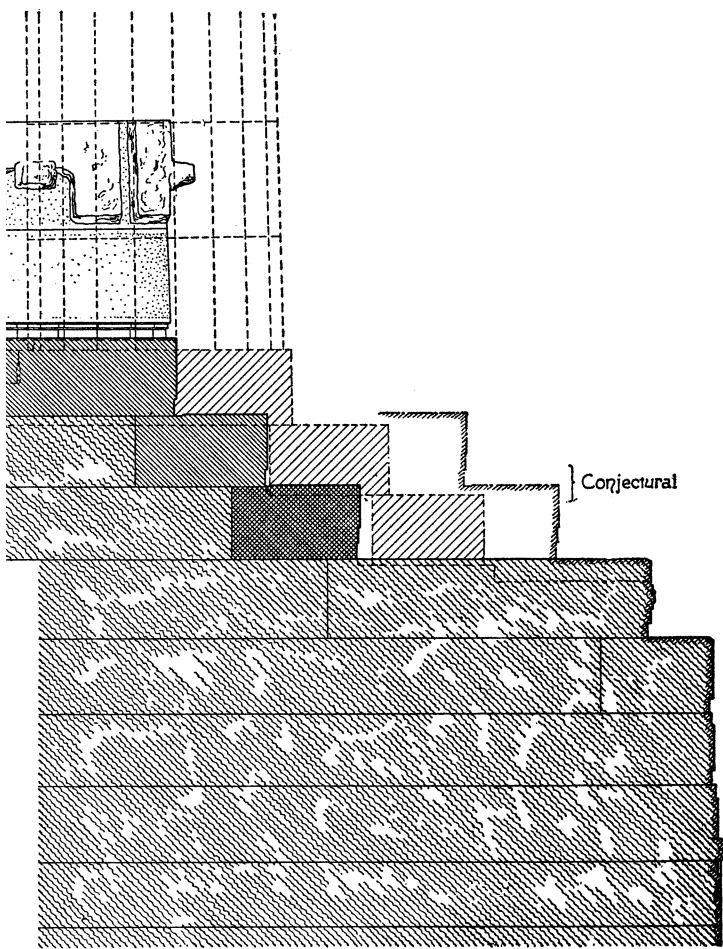
AMERICAN SCHOOL OF CLASSICAL  
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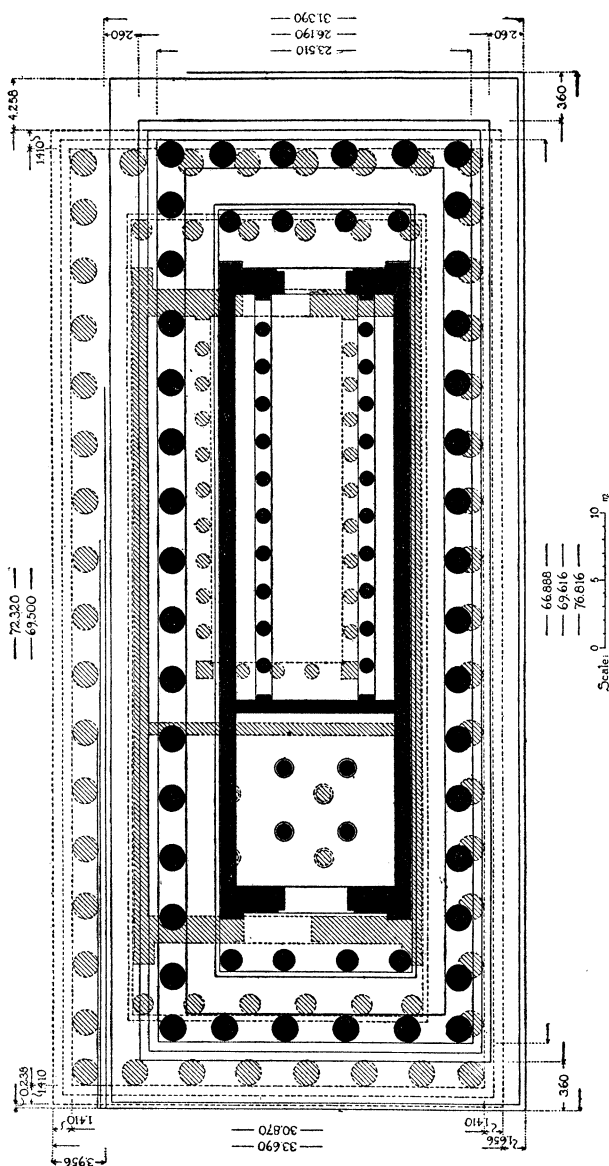
Outline of Earliest Poros Stereobate



THE PARTHENON. SECTION OF SOUTH STEREOBATES, LOOKING



LOOKING EAST



GROUND PLANS OF OLDER AND LATER PARTHENON

(The measurement 4.258, at the northeast corner, should extend to the outermost line at the east)